

Sistema centralizzato di iscrizione agli esami Syllabus

2017/18

173DD

GEOLOGICHE

Università di Pisa cosmochimica

LUIGI FOLCO

Academic year Course

Code Credits

Modules

dits

COSMOCHIMICA

Area GEO/07 6

Type

LEZIONI

Hours 54

SCIENZE E TECNOLOGIE

Teacher(s) LUIGI FOLCO

Obiettivi di apprendimento

Conoscenze

The student who successfully completes the course will have the basic knowledge of the astrophysical process the led to the formation of the Solar System and of the geological processes that occurred and occur on the various constituent bodies. The student will be able to petrographically analyse and classify extraterrestrial rocks (meteorites, micrometeorites and impactites) in order to lay the basis for understanding their petrogenesis and geological context.

Modalità di verifica delle capacità

Through continuous discussion on the treated topics and laboratory work.

Programma (contenuti dell'insegnamento)

Element production and stellar evolution Cosmochemistry versus geochemistry Solar System abundances of elements and isotopes Presolar History Recorded in Extraterrestrial Materials Meteorites: a general introduction Chondrites and Chondrite parent bodies Achondrites, Iron and stony iron meteorites and their parent bodies Micrometeorites and their parent bodies Interplanetary Dust Particles and ablation debris Chronology of the early solar system Chemistry of anhydrous planetesimals Chemistry of comets and other ice-bearing planetesimals Geochemical exploration of planets: the Moon and Mars as case studies Geochemical exploration of planets: Mars as case studies Cosmochemical models for the formation of the solar system Chronometry of Meteorites and the Formation of the Earth and Moon The Early Earth

Modalità d'esame Oral exam

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